



## SODIUM MONOFLUOROACETATE (Compound 1080)

### Agent Overview:

Sodium monofluoroacetate (aka sodium fluoroacetate) occurs naturally in at least 40 plants, including tiny amounts in tea leaves. Exposure occurs from ingesting the natural material (plants, extracts) or from exposure to a baited material (such as meat or crops to entice pests). It can also be used as a poison for intentional targets in similar manner or dissolved in liquid (miscible in water) as a delivery mechanism. These signs and symptoms appear within as little as 30 minutes and up to four hours of ingestion: vomiting, involuntary hyperextension of the limbs, metabolic acidosis, hypotension, dysrhythmias, seizures, coma and finally cardiac and respiratory collapse, often mimicking an acute heart attack. There is no known effective antidote. Few animals or people have been treated successfully after significant compound 1080 ingestions. Lower doses may cause tissues with high-energy needs: the brain, gonads, heart, lungs and fetuses. Lower doses are typically metabolized and excreted within four days. Detection of sodium monofluoroacetate is available in environmental samples only.

### Lab Specimen Submittal:

Authorization by Dr. Jane Getchell, Director DPHL; Christina Pleasanton, Deputy Director DPHL; or Tara Lydick, Chemical Terrorism Coordinator.

### Type of Specimens

Urine: 25mL-50mL screw-cap container

### Necessary for Testing:

Whole blood:

- Three, 5 or 7 mL purple-top (EDTA) tubes (vacuum fill only) AND
- One, 5 or 7 mL gray-top or green-top (vacuum fill only) AND
- Two empty urine cups and two empty blood tubes for each lot # submitted.

### Packaging Instructions:

Urine: freeze specimen upon collection and ship on dry ice; label specimens and package individually; wrap with absorbent material.

Whole blood: place filled tubes in a shipping rack for stability, wrap the tubes in absorbent material, and secure with tape. Place the packaged tubes in a secondary unbreakable container. Specimens may be shipped cold but *must not* be frozen.

All: wrap sample containers and layers with tamper-proof, waterproof forensic evidence tape initialed by collector, being careful not to cover the sample labels. Ship to DPHL as Biological Substance, Category B (Packing Instruction 650).

### Receiving Specimens at DPHL:

Authorized specimens are received at the laboratory's rear (loading dock entrance). Submitters must present ID and complete proper forms.

### Handling of Specimens:

Follow chain of custody procedures. Freeze urine specimens.

### Reporting Results:

Reference laboratory will notify DPHL as soon as possible. The Potential Exposure Call Log and Information form will provide information for notification of testing results outside of the DPHL.

### Contact Information:

Jane Getchell, DrPH, Director DPHL, 302-223-1520 (24/7 coverage)